

AGS MAINTENANCE, MODIFICATIONS, AND REPAIRS SCHEDULE

R. Zaharatos - August 18, 1999

PRELIMINARY SCHEDULE SUMMARY

Maintenance Shutdown Period - Begin: **RHIC - August 16, 1999 0800hrs.**
 AGS - Sept. 1, 1999 0800hrs.
 AGS End - Oct. 29, 1999
 RHIC END - Nov. 15, 1999

Note: MCR will be unmanned off hours but the CAS group will remain on shifts

Machine Areas Access:	Booster	Restricted Access
	AGS	Restricted Access
	All SEB	Restricted Access
	ATR/U Line	Restricted Access
	Linac	Restricted Access
	RHIC	Restricted Access

Job Status: **C - Complete**
 IP - In-process/on going
 Can - Cancelled
 RS - Reschedule
 *** - Additions**

AGS RING POWERED TESTING REQUESTS

- C** 1. Heat Run(0800 - 1200 Sept. 1, Weds.)
- C** 2. Westinghouse testing into ring(approx. 3wks./15 normal work days from 0800-1600 - Begin approx. Oct. 7)
- C** 3. Low energy P.S. for Main Mags.(0800-1600 Sept. 2 and 3, Thurs. and Fri.)
- RS** 4. H20 Septum
- IP** 5. H10 Ejector until October 1st then tower 1 piping
- IP** 6. J10 Beam Dump Bumps
- C** 7. A5 Kicker
- C** 8. F7 Sextupole string (Following installation)

RHIC POWERED TESTING REQUESTS

- IP** 1. Dump Kickers(2wks.)
- C** 2. Power Supplies(1wk at start of shutdown)
- C** 3. PHOBOS Magnet Choke(Oct. 1, 2wks.)
- C** 4. BRAHMS Magnet(Oct. 15, 1wk.)

PRIMARY JOBS

Power outages for electrical work has been tentatively scheduled. No major conflicts at this time. Final schedule will be issued before start of shutdown.

AGS RING EQUIPMENT

- IP** 1. Install J10 Beam Dump
- C** 2. Rebuild Main Magnets J10, J11, and J12.
- C** 3. Rebuild Main Magnet at K13(depends on heat run results, possible deferment to next shutdown)
- C/RS** 4. Replace H2O Septum
- C** 5. Grout ceiling in J and K.
- C** 6. Relamp overhead lights and emergency lights.
- C** 7. Replace F7 Sextupole
- C** 8. Replace F5 Downstream bellows

AGS EXTERNAL EQUIPMENT

- IP** 1. Seal sumps in Fan Hses. A through E
- 2. Test sump alarms in each Fan Hse..
- CAN** 3. Prepare Siemen's Generator for shipping out to rebuild site.
- C** 4. Completion and commissioning of Westinghouse Generator
- C** 5. Fan Hses. A through E electrical maintenance. Fin DCE

BOOSTER RING EQUIPMENT

- C** 1. BAF penetration survey
- C** 2. Survey entire ring and realign as required.
- C** 3. BAF construction penetration Tunnel end 9/22/99
- C** 4. Relamp including emergency lights.
- C** 5. Replace BTA Current Xformer bellows.(Requires bakeout)
- C** 6. Inspect BTA Foil Stripper for correct foil positions.
- C** 7. Replace LTB Dipole DH088
- RS** 8. Check/Repair chamber gnd. sys.
- C** 9. Test repair BPM's for iron run.

BOOSTER EXTERNAL EQUIPMENT

- RS** 1. Repair argon leak on station 1(BTA - AGS side)
- 2. Repair Ion Pump P.S.'s.

LINAC

- C** 1. Rebuild Linac Tower

SEB

- C** 1. Install electric strike at Downstream Escape Gate.
- IP** 2. Set-up for NASA in A1 Line.
- 3. A3 Line - Muon Collider installation

TANDEM

- 1. Install MP6 by-pass for BAF.

U Line

C 1. PTR Line – remove experimental equipment

RHIC

1. Install Beam Scraper in Sects. 7&8.
2. Modify BLM Sys. in Sects. 7&8.
- RS** 3. Install Polarimeter at Sect 12.
- C** 4. Modify Dump Kickers in Sects. 9&10 for bakeout.
5. Modify BLM Sys. in Sect. 12.
- IP** 6. Crystal Collimator installation in Sects. 7&8.
- IP** 7. HSD Magnet installation
- IP** 8. Valve Box repairs
- IP** 9. Troubleshooting of O11DU6/O1DU6Q6
- IP** 10. VJR repairs
11. Injec. kicker feed seal vac. ceramic break
12. Install fans in 18 Tunnel P.S. Alcoves
13. Bi-Polar P.S.'s (const./install)
14. 2 o'clock valve (flux in trusion)
15. Repair 6 o'clock valve, Inspect 4 o'clock (DU4's, DU6, & DU9 of 10, 11 or 12 o'clock)

RHIC IR's

- IP** 1. STAR – Install EM Cals.
- IP** 2. BRAHMS - Experimental equipment installations
- IP** 3. PHENIX - Install gas piping, safety systems, and PLC.
- IP** 4. PHOBOS – Install magnet choke and exp. Equipment.

PROPOSED SCHEDULE

(Detailed schedule will be issued on a daily basis as determined by progression of jobs and work permit requirements. Check TV Monitor or with me)

- 1 Sept. 0800 Maintenance period begins except for AGS Ring heat run.
1. All equipment has been secured except equipment involved in heat run
 2. Begin LOTO for Restricted Access/Shutdown LOTO of Booster, SEB, ATR, and U Line(exclusive of equipment involved in AGS Ring heatrun)
 3. Begin final work plan approvals and detailed coordination of jobs
- 0800-1200 AGS Ring heat run.
- 1300 At this time or at the end of a total cooldown of eight hours the detailed HP surveys will be started:
1. Detailed survey of the AGS with specific job surveys.
 2. Remove High Rad. Area Postings for each AGS Ring Fan Hse.(A-E)
 3. Detailed survey of the Booster with specific job surveys.
 4. Surveys of SEB and ATR/U Line as required.

PROPOSED SCHEDULE(CONT'D)

SEPT.

2 0800-1600 AGS Ring Secured for test of Low energy Main Mag. P.S..
Begin survey of entire Booster Ring magnet cells including BAF penetration.

3 0800-1600 AGS Ring Secured for test of Low energy Main Mag. P.S..

7 0800-1630 AGS Main Mag. Surveys for removal of J10, J11, J12, and possibly K13.
Disconnect Main Mag. Buss at J10,11,and 12(and K13?)

8 - 10 0800-1630 Remove shielding blocks from South Shield entry.
Remove and transport AGS Main Mags. to ring aisle near South Shield and one
or two to 911 assembly area.

13-24 Outside contracted grouting of AGS Ring ceiling H through K.
(J10 area will be done first so that Beam Dump installation can proceed)

17-19 **All servers off-line upgrade - Fri. 1700 to Sun. 1700.**

20 Begin installation of J10 Beam Dump

27-Oct. 5 0800-1630 Reinstall AGS Main Mags.

OCT.

11-28 0800-1630 AGS Ring powered testing of Westinghouse.(preceded by heat run before full
energy)

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: Accelerator Controls – B. Venegas (ext. 2421, BP 0349), W. Buxton (ext. 4053)

For Maintenance Period September, 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
C 1	T alcove (tandem)	56 hrs.	MP6 control system installation (PP,WB) AGS		None
C 2	J18	96 hrs.	J10 Dump Controls (WJ,VW) AGS		None
C 3	930A	120 hrs.	Booster Quad Trim upgrade (JC,NS,VW)		None
IP 4	930A,L18A,914, 911,Dibbuk,929	200 hrs.	Apollo Station replacement AGS		None
IP 5	911A	40 hrs.	Build and test prototype 4 axis motor transition PWA (AW,WB) RHIC		None
C 6	RHIC Service Bldg. & Alcoves	320 hrs.	Remove, Modify, Reinstall 6u VME Chassis (EK,JO,WB) RHIC		None
C 7	RHIC Service Bldgs.	200 hrs.	Install AC-Reset chassis (AW,PS) RHIC		None
C 8	911B	8 hrs.	Computer network upgrade (EK,RK) AGS		None
C 9	Repair f/o in 1002b,R2bbqf2 psbil-qf3-ps	4 hrs.	Repair f/o (WJ,BV) RHIC		None

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: Access Controls – D. Meany (ext. 5329), BP 0361), A. McGeary (ext. 2053, BP 0554)

For Maintenance Period September, 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>		<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	Linac tunnel	24 hrs.	Opm testing of Linac	DONE	Linac personnel	AD 99-004
2	923 Pit		Recalibrate all AGS, RHIC Chipmunks, and Gassner boxes			
3	AGS Ring	24 hrs.	Install electric strike, for north conjunction gate	DONE		SS99- 205acs
4	921 PASS cabinet	16 hrs.	Ground all unused inputs, and PLC's	DONE		
5	V Primary	8 hrs.	Install start of sweep button at V Target gate	DONE	H/P tech.	SS99- 204acs
6		?	Assist as necessary with PASS updates		RHIC Pass techs.	
7	AGS/HEBT GATE	30 min.	Repair AGS/HEBT gate crash switch	DONE	H/P Survey	AD 99-004
8	Booster	4 hrs.	Six months recertification testing expires on 10/06/99			
9	AGS Ring	8 hrs.	Six months recertification testing expires on 10/14/99			
10	SEB Pri ABCD	24 hrs.	Six months recertification testing expires on 10/19/99			
11	U up	?	Six months recertification testing expires on 8/22/99 possible extension			
12	U dn	?	Six months recertification testing expires on 8/22/99 possible extension			
13	g-2	?	Six months recertification testing expires on 8/22/99			
14	RHIC RING	?	Six months recertification testing expires on 12/01/99			
15	J10 beam dump	4 hrs.	Install cabling to beam dump			Yes
16	LINAC	2 hrs.	Remove unused circuits from logic	DONE		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: Beam Components & Instrumentation – D. Lehn Ext. 4095[4276], T. Russo Ext. 7330[4201], A. Curcio Ext. 4659 [4270]

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
C 1	Booster	48	Setup and support of BTA Bake-out.	HP-Survey, Vacuum Grp.	
C 2	AGS	8	A20MW - Investigate cause of bad wires. Repair electronics as necessary.	HP-Survey	
IP 3	AGS	200	AGS Vacuum System - all work external to ring. Repair Ion Pump Power Supplies. Repair Datacon/Readback Problems. Detailed list to follow when work completed.		
IP 4	Booster	40	Booster Vacuum System - all work external to ring. Repair Ion Pump Power Supplies. Repair B2 valve problem. Repair BTI64 Ion Pump Cable/J-Box *		
C 5	Booster	2	Booster Vacuum System - Measure all GP303 Grid voltages.		
C 6	ATR	40	Video Profile Monitor System. Inspect actuators and modify as necessary. (UF1/UF2/UF4/WF2/WF3) * Replace Phosphor flags as necessary. (UF3/UF5/WF1/XF1/XF2/YF1/YF2)	Vacuum Grp. HP-Survey *	
C 7	AGS	80	CATV System - Upgrade operations system. Repair C-Buss for video distribution. *		
C 8	HITL	8	Hookup new cables for current transformer.		
C/RS 9	AGS	40	Support installation of J10 Dump.	Beam Components	
IP 10	A-Line A3-Line	80	E947 - Setup and test of beamline Instrumentation. - Setup of new camera/flag in experimental area. - Setup of remote actuation for SWICS.		
RS 11	RHIC	400	Installation, Setup and test of Beam Scrappers in Sectors 7&8. Includes cable pulls.	Beam Comp., Electricians, Riggers	
RS 12	RHIC	200	Installation, Setup and test of Polarimeter in Sector 12. Includes cable pulls.	Beam Comp., Electricians, Riggers	
RS 13	RHIC	240	Beam Loss Monitor System. Modify in Sector 12 for Polarimeter. Modify in Sector 7 for Beam Scraper. Modify in Sector 8 for Beam Scraper.	Electricians	

				Modify in Sector 9 for Snake. Includes cable pulls. Perform full checkout on above sectors. Beam Loss Monitor System. Sectors 1,2,3,4,5,6,10 & 11 - perform modified checkout.		
RS	14	RHIC	40			
C	15	AGS	24	(C) Support H20 Septum Installation. (C) Modify Vacuum setup in ring and house. (IP) Checkout of loss monitors when complete.	Beam Comp., Vacuum, HP-Survey	
C						
IP						
RS	16	AGS Booster	40	BTA RLRM System. Investigate Argon leak. Repair/Modify/Plan upgrade.	HP-Survey, Mechanical	
CAN	17	AGS	40	Cleanup of C14 Alcove. Possible modifications (to be determined).	HP-Survey	
IP	18	AGS	40	UXF1 Current Transformer. Add junction box / reroute cables and test.	HP-Survey	
IP	19	MP7		Continue work on MP6 Bypass Instrumentation Racks.		
C	20	AGS	8	F20 & G7 PUE Pre-amps. Remove from ring, test, reinstall in requested configuration. K3 Pue Status?	HP-Survey	
C/RS	21	AGS	60	H-20 Install, Survey, Cable, Test	Rigging, Vac.	Yes
RS	22	AGS	60	J-10 Install, Survey, Cable, Test	Rigging, Vac.	Yes
C	23	AGS	120	Main Magnet rebuild, J-10, 11, 12, K-13	Power Supply	Yes
IP	24	RHIC	40	Beam Scrappers - Install, Survey, Cable	Vac, Survey	
C	25	BTA		Bake-out Support (see instr. list)		
C	26	BTA	3	Foil Stripper (BTA) Poss Repair (Sys. okay)		
IP	27	RHIC	160	Polarimeter - Fabricate and install	Vac, Survey	
C	28	AGS	8	F-7 Sextupole - Replace	Vac, Survey	Yes
C	29	AGS	8	F-10 Hoses - Inspect / Replace (no)	Survey	Yes
RS	30		2	Check/Backflush F5 Septum		
RS	31		2	Check/Backflush F10 Ejec.		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM**JOBS SCHEDULING REQUEST****GROUP: LINAC – B. Briscoe Ext. 5007, 5010 [4225], J. Alessi Ext. 7563**

For Maintenance Period September, 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
RS 1	None	4 hrs.	Back flush LEPT solenoids	Pump Room	None
RS 2	None	2 hrs.	Back flush RFQ1	Pump Room	None
RS 3	None	1 hr	Check for install of Sol. in 7835 city H2O	None	None
C 4	HEBT	2 hrs.	Check operation of HEBT Slit	None	Mini RWP
C 5	None	2 hrs.	Put spare NJE supply in HEBT rack	None	None
C 6	None	2 hrs.	Check operation of Pol. Xfmr for BM4	None	Yes
C 7	None	6 hrs.	Load new program in Mod 5 and test	None	None
RS 8	None	4 hrs.	Change transmission elbow from Mod 2 to 5	None	None
C 9	None	4 hrs.	Replace test fire buttons in Mod 1 - 5	None	None
C 10	None	2 hrs.	Fix Mod 8 driver flow switches	None	None
C 11	None	2 hrs.	Check operation of slow chopper	None	None
RS 12	None	2 hrs.	Test operation of new slow chopper	None	None
RS 13	None	4 hrs.	Install pulsed bending mag in LEPT	Security	None
C 14	None	8 hrs.	Change grounds on modulators 1, 2, 3	None	None
C 15	None	4 hrs.	Check for noise on SEM amps	None	None
C 16	None	2 hrs.	Repair micro switches in Mod 3 Modulator	None	None
C 17	None	8 hrs.	Replace AC Cables on Driver Cabinets	None	None
C 18	None	32 hrs.	Set up and Test Polarized protons	None	None
C 19	None	8 hrs.	Regen. cryo of polarized RFQ	None	None
C 20	None	8 hrs.	Replace driver cart in Mod5	None	None
RS 21	None	32 hrs.	Start removing all cables from old P.S.	None	None
IP 22	HEBT		Fix leak on WQ17 Quad in HEBT.		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: G-2: J. Benante (Ext. 4498 [1207])

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
IP 1		160 hrs.	Magnet Shimming		
RS 2		400 hrs.	Inflector repair? (g-2 warm-up?) - CAN		
IP 3		80 hrs.	Inflector Test		
IP 4		Shift 24 hrs. (3 weeks)	g-2 Cooldown (Cryo Grp. responsibility)		
IP 5		160 hrs.	Magnet Insulation		
C 6		80 hrs.	Beam chamber installations		
IP 7		32 hrs.	Detector Installation		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: POWER DISTRIBUTION: D. Bastedo (Ext. 2555) [0274], T. Nehring (Ext. 5275) [4246]

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
C 1	Fan House A	8 hrs.	Electrical Maintenance of Circuit C41 - Power shutdown in AGS Ring.	None	
C 2	Fan House C	8 hrs.	Electrical Maintenance of Circuit D43 - Power shutdown in AGS Ring.	None	
C 3	Fan House D	8 hrs.	Electrical Maintenance of Circuit B41 - Power shutdown in AGS Ring.	None	
C 4	Fan House B	8 hrs.	J10 Dump Bump P/S Power - Circuit D41 - Power shutdown of 1 hour	None	
IP 5	Westinghouse PR	8 hrs.	MCR UPS - Installation of electrical distribution panel.	None	
RS 6	AGS Ring	24 hrs.	Replacement of damaged 480 volt cable in F Superperiod.	HP	
C 7	AGS F Superperiod	4 hrs.	F5 & F10 Flow Signal cable run to 911 Pump Room	HP	
C 8	AGS Ring	24 hrs.	Re-lamp AGS Ring		
C 9	Booster	16 hrs.	Re-lamp Booster Ring		
C 10	Bldg. 928 & E18 House	8 hrs.	Relocation of E18 UPS to E10 House		
C 11	Substation 7N	8 hrs.	Power Shutdown for electrical work (RHIC & PTR areas).		
IP 12	Feeder 911-17	8+ hrs.	Power shutdown for electrical work (G18, H10, F10, E10, A10, L18A Houses, HITL, Bldg. 925 and Bldg. 911 new wing).		
IP 13	Bldg. 1000P	40 hrs.	Changes to Building electrical wiring @ Switch CM & Emergency Lights		
C 14	Bldg. 1000P	24 hrs.	Changes to electrical wiring in racks WB-2, WB-3, WB-4.		
CAN 15	"A" Trailer	24 hrs.	Changes to electrical wiring in racks ATRL-6&7		
IP 16	Westinghouse PR	8 hrs.	Circuit Breaker battery bank switch-over.		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: Pulsed Power Systems: R. Zapasek (Ext. 2189) [4263], A. Zhang (Ext. 5369) [7248]

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS</u> <u>TO</u>	<u>EST.</u> <u>HRS.</u>	<u>JOB DESCRIPTION AND</u> <u>RESPONSIBLE PERSON</u>	<u>ADD'L.</u> <u>SUPPORT</u>	<u>HP</u> <u>SURVEY</u>
IP 1	RHIC	6 wks.	Abort Kicker , complete installation 1. Install vacuum and beam permit interlocks. 2. Look at noise on BPM from kickers. 3. Commission yellow system 4. Modify BIAS interlock boards. 5. Install SOLA transformers. A. Zhang		
RS 2	1005,7	3 md	Injection Kickers , install KIRK keys, A. Zhang		
C 3	1005	2 md	Injection Kicker , test if oil is changed, A. Zhang		
C 4	AGS	2 wks.	A5 Kicker , inspect & modify PEN, A. Zhang		
RS 5	L18A	1 md	L20 , install new output choke, R. Lockey		
C 6	Booster	2 md	F3 Kicker , inspect PRN A. Zhang		
C 7	Booster	1 md	L20 , inspect fan and cables, R. Lockey		
IP 8	Various	1 wk	Various , inspect F01, F02 chassis, A. Zhang		
IP 9	H10 House	1 wk	H10 , troubleshoot power supply problems, R. Lockey	Need LOTO for testing 1 wk.	
IP 10	H10 House	1 wk	H10 , install and test slew limiting card, R.Lockey		
IP 11	G-2	1 wk	G2 Kicker , general maint. Mi,		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: RF Systems: N. Laloudakis (Ext. 7177, 7417 [4261], A. Zaltsman (Ext. 2967[4259]

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
AGS					
RS	1	AGS Ring	Replace all air filters (10 Each)	No	Yes
RS	2	AGS Ring	Check and replace all water filters	Pump Room	Yes
C	3	Bldg. 929	Replace 2 capacitors in plate supplies	Riggers	No
BOOSTER					
C	1	Bldg. 914	Replace transformer for A3 power Supply	Riggers	No
IP	2	Bldg. 914	Finish PLC program with control view for Booster HLRF.	No	No
RS	3	Booster Ring	Replace or clean all water filters.	Pump Room	Yes
RHIC					
IP	1	Bldg. 1004	Finish the installation of 197 MHZ system (10 each)	No	No

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

GROUP: Vacuum Systems - S. Gill (Ext. 4627 [4164], M. Mapes (Ext. 2841[4277])

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
C 1	AGS Ring	260	Refurbish AGS main magnets J-10, J-11, J-12, K-13. Vent sectors J, K and KL, remove chambers & ion pumps. Remove K-13 sector valve prior to magnet removal. 2 men	Beam Comp., Instrum., HP, Rigging (?), Survey	Survey Req'd RWP#
RS 2	AGS Ring	64	Install J-10 Beam Dump. 2 men	Same as above	Survey Req'd RWP#
C 3	AGS Ring	80	Install H-20 Septum. Vent HI sector, remove existing septum, install new septum / ion pumps, test. 2 men	Same as above	Survey Req'd RWP#
C 4	AGS Ring	40	Replace all existing plastic air lines 1 man	HP	Survey Req'd RWP#
IP 5	HEBT "A"	120- 180	Replace vacuum chamber / magnet BM1. 3 men	Survey, Linac, HP	Survey Req'd RWP#
C 6	Booster	120- 180	Replace vacuum chamber / ion gauges in BTA line (BXT 10), Bakeout line. 3 men	Survey, Instrum.	Survey Req'd, RWP #
CAN 7	AGS Ring	24	Possibly replace E-15 servo motor 1 man	Instrum., HP	Survey Req'd, RWP#
CAN 8	AGS Ring	24	Possibly replace C-5 servo motor. 1 man	Instrum., HP	RWP#
RS 9	Booster	??	Possibly open up Booster for BAF installation.		
C 10	BLIP	32-48	Replace d/s pipe in wall. 2 men ** CONTAMINATION WORKER TRAINING REQUIRED **	BLIP, HP, Linac	Survey Req'd Rwp#
IP 11	ATr Line	12-18	Remove section of pipe in section W-2 & reinstall. Waiting to reinstall 11/4		
C 12	AGS Ring	64	Replace F-5 d/s bellows 2 men	Beam Comp., HP	Survey Req'd RWP#
C 13	AGS Ring	80	Assist with replacement of F-7 sextupole	Beam Comp., HP, Water, Survey	Survey Req'd RWP#
C 14	ATr line	2 days each	Replace one flag in U, W, X & Y Lines	Instrum., HP	
IP 15	ATR		Remove current x-fmr in section U-1 for repair. Replace at later date (UXF1)		
C 16	AGS		Replaced roughing pump at E-17 and F-7.		
C 17	AGS		Replaced roughing valve at F-7		
C 18	g-2		Restored vacuum to cryostat & ring chambers		

AGS MAINTENANCE, REPAIR AND MODIFICATION PROGRAM

JOBS SCHEDULING REQUEST

**GROUP: Water Systems: J. deBoer (Ext. 4668 [4250], E. Dale (Ext. 7934 [0124],
R. Grandinetti (Ext. 7186 [4139]**

For Maintenance Period September 1999

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
C 1	928	32 mhrs.	Repair leaks in Building 928	None	
C 2	930	32 mhrs.	Comply with Y2K computer checks	None	
C 3	Fan Houses	8 mhrs.	Inspect all fan house condensate pumps	None	CP
IP 4	J-10	32 mhrs.	Install J-10 Bump Dump manifold and Hook-up hoses to power supply.	None	CP
C 5	Beam Stop	16 mhrs.	Inspect hoses to beam stop	None	CP
C 6	Brahms Tower	24 mhrs.	Repair leaks to inlet pipe of tower clean tower as needed.	None	
C 7	Tower 6	32 mhrs.	Install and check new flow transmitter and controller.	None	
RS 8	Booster	40 mhrs.	Inspect, locate and repair argon leaks in Booster Ring.	None	CP
C 9	SEM Evaps	16 mhrs.	Locate and seal all leaks for SEM Evap coolers.	None	
C 10	Tower 1	32 mhrs.	Drain, clean and repair tower.	None	
C 11	Tower F-10	8	Drain, clean basin and strainer	None	
C 12	Tower 6	4 mhrs.	Drain, clean cooling tower	None	
C 13	RFMG Tower	8 mhrs.	Drain, clean cooling tower	None	
C 14	Linac Tower	8 mhrs.	Drain, clean cooling tower	None	
IP 15	Tower 7	8 mhrs.	Drain, clean cooling tower	None	
C 16	RHIC RF Tower	12 mhrs.	Drain, clean and seal leaks in cooling tower.	None	
C 17	RHIC Phobos Tower	8 mhrs.	Drain, clean cooling tower	None	
C 18	F5	16 mhrs.	Check-Repair-Replace Flowmeter	None	CP
C 19	F10	16 mhrs.	Check-Repair-Replace Flowmeter	None	CP

C	20	H-10	40 mhrs.	H-10 to Tower 1 piping modifications	PE, Plumbers	
C	21	911	32 mhrs.	Main Magnet deion control	None	CP
C	22	Star-TPC	16 mhrs.	TPC Flow Meter installation	None	
C	23	Star-MCW	40 hrs.	MCW Pump Installation	PE, Plumbers	
C	24	RFMG	48 hrs.	Deion control for RF Cav, Rf Power and SEM Systems	None	CP
C	25	Tower 1	40 hrs.	Replace drain pipe	PE, Plumbers	
IP	26	Tower 4	48 mhrs.	Install toe boards and tie off	PE, Contractors	
IP	27	Linac Tower	48 mhrs.	Install toe boards and tie off	PE, Contractors	
IP	28	T/E Bldg	32 mhrs.	Check and or replace relief valves	None	
C	29	Tower 5	64 mhrs. (Sept. 20-24)	Asbestos abatement of tower	PE, Contractors	
C	30	Linac Tower	64 mhrs. (Sept. 7-17)	Asbestos abatement of tower and upgrade.	PE, Contractors	
C	31	911	16 mhrs.	Install Main Magnet Control valve air filter	None	
C	32	913	2 mhrs.	Check E20 catcher water flow	None	
C	33	913		Back flush I17 Tune Quad (failed heat run)		
C	34	913		Back flush A6 Sextupole (failed heat run)		
C	35	919	24 mhrs.	Drain, clean cooling tower, perform maintenance of fan & gear box assembly	None	
C	36	913	24 mhrs.	Cleaned all tune quad strainers in Ring	None	CP
C	37	RFPA	12 mhrs.	Cleaned and inspect RFPA E-vap cooler	None	
C	38	911-B	40 mhrs.	Cleaned and performed maintenance on all (8) E-vap coolers for main magnet	None	
C	39	930	12 hrs.	Disconnect and reconnect cooling lines for bellow replacement in Hibet line	Vacuum Group	CP
C	40	914	12 hrs.	Disconnected & reconnected cooling lines for Booster magnet repairs.	Vacuum Group	CP
C	41	901	80 hrs.	Installation of cooling lines for numerous power supplies and magnet. Replace deionizer pump	Tandem Personnel	
C	42	930	40 hrs.	Repair/modify Linac Deionizer system	Linac Personnel	